UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/835,625	04/09/1997	EDWARD W. MOLL	M1043/20006	5281

3000 7590 07/24/2012

CAESAR, RIVISE, BERNSTEIN,
COHEN & POKOTILOW, LTD.
11TH FLOOR, SEVEN PENN CENTER
1635 MARKET STREET
PHILADELPHIA, PA 19103-2212

EXAMINER	
TWEEL JR, JOHN ALEXANDER	
ART UNIT	PAPER NUMBER
2612	

NOTIFICATION DATE	DELIVERY MODE
07/24/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@crbcp.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDWARD W. MOLL

Appeal 2010-003945
Application 08/835,625
Technology Center 2600

Before JOSEPH L. DIXON, THU A. DANG, and
JAMES R. HUGHES, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from a rejection of claims 1, 2, 4, 9, 12, 15, 17, 18, 21, 38, 40, 44, 45, 51, 55, and 67-70. We have jurisdiction under 35 U.S.C. § 6(b). This appeal is related to prior appeal 2002-1635, mailed Mar. 31, 2004.

We reverse.

The claims are directed to controlling a computer based on stimuli sensed from a user's thought. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. An apparatus for controlling a computer operation based on one or more stimuli sensed from at least one user thought, said apparatus comprising:
>
> (a) stimuli input means coupled to the user for detecting at least one stimulus being caused by the at least one thought of the user;
>
> (b) a computer having an operating system, coupled to said stimuli input means, for processing said at least one stimulus to produce a function control signal to control the operation of said computer wherein said computer does not require an articulated response from the user, said computer comprising:
>
> (1) function selection means for receiving said at least one stimulus and wherein said function selection means comprises a memory including a correspondence between a plurality of previously-stored user stimuli and a plurality of desired function control signals;
>
> (2) identification means, coupled to said function selection means, for comparing said at least one stimulus to said correspondence to identify a function control

signal corresponding to said at least one stimulus, said function control signal being transmitted to the operating system of said computer.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Hartzell	US 4,949,726	Aug. 21, 1990
Adachi	US 5,325,133	June 28, 1994
Junker	US 5,474,082	Dec. 12, 1995
Kuc	US 5,594,849	Jan. 14, 1997 (filed Aug. 9, 1991)

Smotroff, "The Other 90% Technologies Inc. breaks through the thought barrier with MindDrive," Business Wire (June, 16, 1995)[1]

REJECTIONS

Claims 1, 4, 9, 12, 15, 17, 21, 38, 40, 51, 55, and 67-70 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Junker and Smotroff.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Junker, Smotroff, and Kuc.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Junker, Smotroff, and Hartzell.

[1] We rely on the Smotroff reference provided in Appellant's Evidence Appendix to the Appeal Brief filed August 20, 2009, as we find no record of the Smotroff reference in the file history for this application. The Smotroff reference in Appellant's Evidence Appendix corresponds to the Examiner's citation to Smotroff (*see* Ans. 4), and thus we assume it is the identical reference that the Examiner relies upon.

Claims 44 and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Junker, Smotroff, and Adachi.

ANALYSIS

The Examiner finds that Junker and Smotroff collectively disclose all the limitations of independent claim 1 (Ans. 3-5). Particularly, the Examiner finds that Junker discloses "function selection means," and that Smotroff discloses "identification means" (Ans. 4-5, 13-17). Appellant contends that the Examiner's continued reliance on Junker for disclosing the claimed "function selection means" contravenes the Board's previous Decision on Appeal mailed March 31, 2004 ("Decision") (App. Br. 14-15). Appellant further contends that Smotroff fails to cure the deficiencies of Junker, and that Smotroff does not disclose the claimed "identification means" (App. Br. 15-22). We agree with Appellant.

In the prior Decision, the Board stated that "Appellant argues . . . that the function selection means . . . are not taught or suggested by Junker. We agree with appellant, and do not find that the examiner has shown where or how Junker teaches these claim limitations" (Decision 5-6). We continue to maintain that prior finding because current claim 1, reproduced above, includes the identical limitation "(b) . . . (1) function selection means . . ." that was the basis for the prior Decision (*see* Decision 2). We acknowledge that the prior Decision considered Junker with respect to 35 U.S.C. § 102(b), while claim 1 is presently rejected under 35 U.S.C. § 103(a). However, the Examiner has not explained why the claimed "function selection means" would have been obvious over Junker in view of Smotroff (*see* Ans. 4-5, 13-17). Rather, the Examiner relies solely on Junker to teach this feature:

> The claimed function selection means has now used a pre-stored brain-body signal to send a desired function control signal as recited in the Junker reference. All that is now needed is to identify, according to the claim, the proper function control signal that is then sent to the operating system of the computer. For this we go to the Smotroff disclosure . . . .

(Ans. 16).

Nevertheless, for clarification, we address the Examiner's finding (Ans. 4, 13-14) that Junker's data store 19 discloses "function selection means." As recited in claim 1, the "function selection means comprises *a memory including a correspondence between a plurality of previously-stored user stimuli and a plurality of desired function control signals*."[2] Junker discloses that a "digital brain-body signal is stored in data store 19" (Junker, col. 7, ll. 2-3). However, Junker's storing a brain-body signal does not disclose storing a correspondence—i.e., a mapping—between previously-stored user stimuli and desired function control signals. In other words, Junker stores a signal, not a relationship between previously-stored signals and desired control signals.

Junker also discloses that "data store 19 stores data associated with the execution of programs within the background loop processor 35 and foreground loop processor 39" (Junker, col. 7, ll. 42-45). However, Junker provides no indication that the "data associated with . . . the background loop processor 35 and foreground loop processer 39" includes the claimed correspondence. Rather, Junker discloses a feedback system where an

[2] We do not comment on whether the limitation "comprises a memory" provides sufficient structure so as to eliminate the presumption that the "function selection means" should be treated as a means-plus-function limitation under 35 U.S.C. § 112, sixth paragraph. *See* MPEP, § 2181(I).

output control signal follows the frequency of an input brain-body signal, and is not based on a correspondence between previously-stored brain-body signals and desired control signals:

> The background loop processor 35 reads the brain-body signal from the A/D converter 26 and uses a digital lock-in amplifier provided by control signal generator program 32 to produce control signals at reference frequencies the user has chosen from a range of selectable frequencies. Next a phase-locked loop program 34 forms a phase-locked loop for each control signal. The phase-locked loop permits the control system 29 to track the predominant frequencies of the brain-body signal within each selected control signal reference frequency band.

(Junker, col. 7, ll. 13-23).

Further, although Junker's system allows a user to select different application programs to display feedback (Ans. 14; Junker, col. 7, ll. 30-42), this does not indicate that Junker stores the claimed correspondence. Rather, Junker's user selects which type of display to drive with the control signal—for instance, a video display, a play music program, or a cursor control program (*see id.*)—but does not select which control signal to output. As discussed above, Junker's control signal is based on the frequency of the brain-body signal, not on a correspondence between previously stored brain-body signals and desired control signals. Therefore, Junker's data store 19 does not meet the limitation "function selection means . . . wherein said function selection means comprises a memory including correspondence between a plurality of previously-stored user stimuli and a plurality of desired function control signals" recited in independent claim 1.

We also find that Junker and Smotroff do not disclose the claimed "identification means" because the "identification means" compares a received stimulus to the claimed "correspondence." As discussed above, Junker does not disclose storing a "correspondence," and the Examiner has not shown that this feature would have been obvious over Junker and Smotroff (*see* Ans. 4-5, 13-17). Moreover, Smotroff's disclosure that "Proprietary Artificial Intelligence software . . . interprets these signals and translates them into commands understood by the standard PC—which directly moves the desired object or image on a video screen" (Smotroff, p. 38) does not change the analysis. Absent a more detailed disclosure of how Smotroff's "Artificial Intelligence" is accomplished, the Examiner's findings (Ans. 4-5, 16-17) are insufficient to show that Smotroff's commands are necessarily based on a stored correspondence between previously-stored stimuli and desired function control signals, as opposed to, for example, some direct translation algorithm independent from any desired function control signals.

Therefore, we are constrained by the record to find that the Examiner erred in rejecting claim 1, independent claims 55 and 67-70 which recite commensurate limitations, and dependent claims 2, 4, 9, 12, 15, 17, 18, 21, 38, 40, 44, 45, and 51 for similar reasons.

CONCLUSION

The Examiner erred in rejecting claims 1, 2, 4, 9, 12, 15, 17, 18, 21, 38, 40, 44, 45, 51, 55, and 67-70 under 35 U.S.C. § 103(a).

DECISION

For the above reasons, we reverse the rejections of claims 1, 2, 4, 9, 12, 15, 17, 18, 21, 38, 40, 44, 45, 51, 55, and 67-70.

REVERSED

pgc